

Remarks/Arguments:

Amendments

Claims 26 has been amended. The limitations of claims 26, 30, 31, 38, and 39 have been incorporated into claim 26. Additional support for this amendment is found on page 3, lines 4-13, and in Figure 5. Claims 27, 30, 31, 38, and 39 has been cancelled. Claim 40 has been amended to change dependency. It is submitted that no new matter is introduced by these amendments.

Objections to the Drawings

Figures 1 and 4 have been amended as requested to add the term "Prior Art.". Amended drawings are enclosed. It is submitted that this objection has been overcome.

First Rejection under 35 USC 103

Claims 26-31 and 38-43 were rejected under 35 USC § 103(a) as unpatentable over Meeks, U.S. Patent 5,830,092 ("Meeks"), in view of Zocher, U.S. Patent 3,340,586 ("Zocher"). Claim 26 has been amended. Claims 27, 30, 38, and 39 have been cancelled. Claims 26, 28, 29, and 41-43 remain.

Meeks

Meeks discloses a tennis ball having an outer felt fabric comprising at least two layers of non-woven fabric with the outer layer having a weight ratio of wool therein greater than 45% and the inner or bottom layer having a weight ratio of wool therein less than 40%. Abstract.

Meeks was cited for the following reason: Meeks is concerned with the creation of a tennis ball outer covering comprising needled nonwoven felt and scrim layer (col. 2, lines 14-20). Meeks teaches that the felt is needled, but does not teach a specific method of needlepunching. Paper 6, page 3, lines 13-16.

Applicant's position, as stated in the response of September 18, 2002, incorporated by reference, is that Meeks is not relevant art under 35 USC 103 because it teaches (1) a two-layer fabric for a tennis ball covering and (2) that needlepunch technology produces a stiffer more

rigid material that does not meet all the requirements of the ball manufacturers, so balls produced by needlefelt technology are limited to practice balls or casual players who are not as particular as to the appearance of the finished balls and require minimum performance characteristics. Meeks, Abstract and column 1, line 60, to column 2, line 5. In contrast, applicant uses needlefelt technology to produce a one layer ball covering. Meeks teaches away from such a ball covering. Thus, Meeks teaches away from applicant's invention.

A reference that teaches away from an invention can not make it obvious. The person of ordinary skill in the art, having the advantage of the teachings of Meeks, would not be motivated to use the needlefelt recited by applicant's claims as the covering for a tennis ball because a one layer needlefelt covering would negate the improved playing characteristics provided by the complex covering taught by Meeks. Instead, person of ordinary skill in the art would use layers of differing fiber content, as taught by Meeks, to solve the problem.

Applicants further assert that the teaching of Meeks that that needlepunch technology produces a stiffer more rigid material that does not meet all the requirements of the ball manufacturers, so balls produced by needlefelt technology are limited to practice balls or casual players who are not as particular as to the appearance of the finished balls and require minimum performance characteristics is evidence of the non-obviousness of applicant's invention because applicant's invention is unexpected and goes against the teachings of the art, the two layer ball covering taught by Meeks.

Zocher

As amended, claim 26 recites that the penetration depth of the inwardly extending fibers is greater than the penetration depth of the outwardly extending fibers and the fiber density decreases from the inner surface of the covering towards the outer surface. This provides good play characteristics without any loss of wear performance.

These features are not disclosed by Zocher. Although Zocher includes some non-perpendicular fibers, these fibers do not pass through the batt, but instead enter on one side of the batt and subsequently re-emerge on the same side of the batt without passing through the thickness of the batt. See, Zocher, Figures 2, 3, 5, 7, 8, and 9. Further, Zocher does not show that the fiber density decreases from the inner surface of the covering towards the outer surface

or that the penetration depth of the inwardly extending fibers is greater than the penetration depth of the outwardly extending fibers.

In response to the Office Action of June 23, 2003, applicants offer the following comments. The Office position is that "the process of Zocher results in fibers extending through the thickness of the batt at a range of angles." Paper 21, page 3, lines 2-4. This position is respectively traversed. As is apparent from Figure 8 and Figure 9 of Zocher, the fibers do not pass through the thickness of the batt. Further, the "superior and cohesion of the resulting felted product" taught by Zocher (column 2, lines 28-29) and relied on by the Office (paper 17, page 4, lines 10-11) refers to this three dimensional fiber arrangement (column 2, lines 31-34), not to the fiber arrangement recited in applicant's claims.

The Office asserts that Zocher teaches a process similar to that used by applicant. Paper 21, page 3, lines 6-8; lines 15-17. This assertion is respectively traversed. As shown by Figure 7 of Zocher, the curved needles do not pass through the thickness of the batt. Therefore, the process of Zocher is different than that used by applicant.

The Office asserts that the two sides of Zocher's batt are the same. Zocher states it is possible to maintain the integrity and appearance of one side of the batt by having the needles avoid the surface, Zocher, column 2, lines 35-42. Thus, the two sides of the batt are not the same.

The Combination of Meeks and Zocher

As discussed above, Zocher does not disclose or suggest the following limitations of applicant's claim 26:

1. The penetration depth of the inwardly extending fibers is greater than the penetration depth of the outwardly extending fibers.
2. The fiber density decreases from the inner surface of the covering towards the outer surface.

Applicant asserts that Meeks may not be combined with Zocher. However, even if, for the sake of argument, Meeks is combined with Zocher, these deficiencies are not overcome.

The Office has not made the *prima facie* case. The missing features, listed above, are not disclosed or suggested by either Meeks, Zocher, or the combination thereof. It is submitted that the rejection of claim 26 unpatentable over Meeks in view of Zocher has been overcome. Claims 28, 29, and 41-43 are patentable as claims dependent on a rejected claim.

Second Rejection under 35 USC 103

Claims 26-31 and 38-43 were rejected under 35 USC § 103(a) as unpatentable over Meeks, in view of Fehrer, U.S. Patents 5,813,101, and 5,752,301, GB 2,306,519, GB 2,310,221, or 2,315,218.

As discussed above, Meeks discloses a two layer ball covering and thus is not relevant art under 35 USC 103, and, further, is evidence of the non-obviousness of applicant's invention. However, even if, for the sake of argument, Meeks is combined with each of the five cited references (which were cited in the alternative not in combination) in the manner suggested by the Office, a *prime facie* case is not produced.

The Office has made a general assertion that each of the five secondary references teaches applicant's claimed needling process and asserts that it would be obvious to a person of ordinary skill in the art to needle the web of Meeks to the process taught by each of these references.

The Office has not pointed the specific portions of each of the references relied on for this assertion. See, 37 CFR 1.104(c)(2)(particular part of reference relied upon must be pointed out and pertinence of each reference explained); *see also, In re Lee*, 61 USPQ2d 1430, 1434 (Fed. Cir. 2002) (agency must develop an evidentiary basis for its findings). In particular, the Office has not pointed out where each or all of these references show a method that would produce a batt in which:

1. The penetration depth of the inwardly extending fibers is greater than the penetration depth of the outwardly extending fibers.
2. The fiber density decreases from the inner surface of the covering towards the outer surface.

The Office has not made the *prima facie* case. Combination of the references in the manner proposed by the Office does not produce or suggest applicant's invention. The rejection of claims as unpatentable over Meeks, in view of Fehrer, U.S. Patents 5,813,101, and 5,752,301, GB 2,306,519, GB 2,310,221, or 2,315,218 should be withdrawn.

Objective Evidence of Non-Obviousness

Although the Office has not made the *prima facie* case, there is objective evidence of non-obviousness of the record.

First, applicant points to the disclosure of Meeks discussed above as evidence of the non-obviousness of applicant's invention.

Secondly, applicant has submitted a Declaration by Alan John Brasier, the named inventor of the above-captioned application and an employee of Milliken Industrials Limited, the assignee of the above-captioned application. For the reasons given in applicant's previous response, which are incorporated herein by reference, applicant again traverses the Office's dismissal this Declaration as "merely the opinions of four tennis players" and "the opinion of four people who played with the balls." Paper 17, page 4, line 11-16.

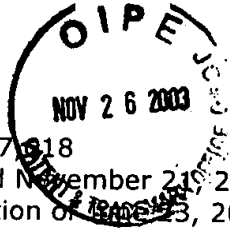
The Office asserts that the "Patent Office is not qualified to evaluate opinions, but rather is charged with evaluating measured results and calculations." Paper 21, page 4, lines 5-7. This is incorrect. The Office must consider any evidence of non-obviousness submitted by an applicant. See, MPEP 716.01(a) (citing cases). Opinion evidence must be considered. *Id.*

Applicants submit that the objective evidence of non-obviousness of record demonstrates the unexpected superior playing characteristics of the claimed tennis balls. Even if the Office has made the *prima facie* case, it has been overcome by the showing of unexpected results.

Extension of Time

A check for a two-month Extension of Time accompanies this response. Extension of Time A check for a two-month Extension of Time accompanies this response. Pursuant to 37

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Amendment Dated November 21, 2003
Reply to Office Action of June 23, 2003



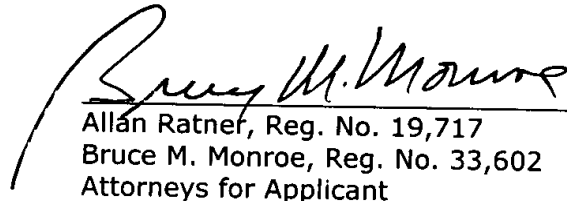
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C.F.R. § 1.136(a)(3), the Director is respectfully requested to consider this check as a constructive petition for an extension of time.

Conclusion

It is respectfully submitted that the claims are in condition for immediate allowance and a notice to this effect is earnestly solicited. The Examiner is invited to phone applicants' attorney if it is believed that a telephonic or personal interview would expedite prosecution of the application.

Respectfully submitted,

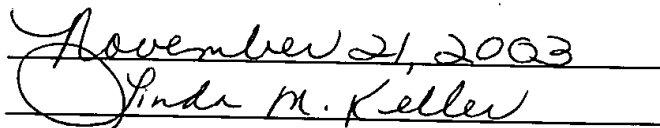

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November 21, 2003
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